

1 This listing of claims will replace all prior versions, and listings, of claims
2 in the application.

3
4 **Listing of Claims:**

5
6 Claim 1 (Currently amended): A method performed at a server computer,
7 for tracking a requested signal, the method comprising:

8 receiving ~~at a server computer,~~ a request for the requested signal;
9 generating ~~at the server computer,~~ transaction identification data which
10 identifies the received request;

11 including ~~at the server computer,~~ a pattern in the requested signal to form a
12 watermarked signal using a predetermined basis signal, wherein the transaction
13 identification data can be derived from the pattern; further wherein the inclusion of
14 the basis signal in the requested signal is designed to introduce no more than a
15 predetermined maximum level of perceptibility to the requested signal.

16
17 Claim 2 (Original): The method of Claim 1 where including comprises:
18 retrieving the basis signal; and

19 including the basis signal in the requested signal to form the watermarked
20 signal in such a manner that the pattern is embedded in the watermarked signal and
21 can be recognized in the watermarked signal.

1 Claim 3 (Previously presented): The method of Claim 2 wherein including
2 the basis signal comprises:

3 logically dividing the basis signal into segments; and
4 for each segment of the basis signal,
5 adding the segment of the basis signal to a corresponding segment of the
6 requested signal upon a condition in which a corresponding portion of the pattern
7 has a first logical value; and
8 subtracting the segment of the basis signal from the corresponding segment
9 of the requested signal upon a condition in which the corresponding portion of the
10 pattern has a second logical value.

11
12 Claim 4 (Currently amended): The method of Claim 1 further comprising:
13 sending ~~from the server computer,~~ watermarked signal in response to the
14 request for the requested signal.

15
16 Claim 5 (Original): The method of Claim 1 wherein including comprises:
17 selecting watermarked signal fragments representing a first logical value for
18 corresponding portions of the pattern which have the first logical value;
19 selecting watermarked signal fragments representing a second logical value
20 for corresponding portions of the pattern which have the second logical value; and
21 combining the watermarked signal fragments representing the first and
22 second logical values to form the watermarked signal.

1 Claim 6 (Previously presented): The method of Claim 5 wherein the
2 watermarked signal fragments are compressed such that the watermarked signal
3 fragments comprise the watermarked signal in a compressed form.
4

5 Claim 7 (Currently amended): A method performed at a server computer,
6 for enabling embedding of transaction-specific identification data into a requested
7 signal, the method comprising:

8 logically dividing the requested signal into segments ~~at a server computer~~;

9 for each segment,

10 embedding a first logical value in the segment to form a first
11 embedded segment;

12 embedding a second logical value in the segment to form a second
13 embedded segment; and

14 including both the first and second embedded segments in a
15 composite signal.
16

17 Claim 8 (Original): The method of Claim 7 further comprising:

18 for each of the segments of the requested signal:

19 selecting from first and second embedded segments of the composite signal
20 according to a corresponding bit of the transaction-specific identification data.
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1 Claim 9 (Original): The method of Claim 8 further comprising:
2 combining the selected embedded segments of the composite signal to form
3 a watermarked signal which includes the transaction-specific identification data
4 embedded therein.

5
6 Claim 10 (Original): The method of Claim 7 wherein including both the
7 first and second embedded segments in a composite signal comprises:
8 including the first embedded segment in a first frame;
9 compressing the first frame to form a first compressed frame;
10 including the second embedded segment in a second frame;
11 compressing the second frame to form a second compressed frame; and
12 including both the first and second compressed frames in the composite
13 signal.

14
15 Claim 11 (Original): The method of Claim 10 wherein including both the
16 first and second embedded segments in a composite signal further comprises:
17 determining that the first and second compressed frames are equivalent; and
18 including a single compressed frame in the composite signal to represent
19 both the first and second compressed frames.

20
21 Claim 12 (Currently amended): A method performed at server computer,
22 for embedding transaction-specific identification data into a requested signal, the
23 method comprising:

24 retrieving ~~at a server computer~~, a composite signal which includes, for each
25 of one or more corresponding portions of the requested signal, a first marked

1 segment which represents a first logical value embedded in the corresponding
2 portion of the requested signal and a second marked segment which represents a
3 second logical value embedded in the corresponding portion of the requested
4 signal;

5 for each of the corresponding portions of the requested signal, selecting
6 segments of the composite signal according to logical values of corresponding bits
7 of the transaction-specific identification data; and

8 combining ~~at the server computer~~ the selected segments to form a
9 watermarked signal which includes the transaction-specific identification data
10 embedded therein.

11
12 Claim 13 (Original): The method of Claim 12 wherein the first and second
13 marked segments are compressed such that watermarked signal formed by
14 combining the selected segments is compressed.

15
16 Claim 14 (Previously presented): A computer-readable storage medium on
17 which is stored computer code which, when executed by a server-side computer,
18 causes the computer to enable tracking a requested signal by:

19 receiving a request for the requested signal;

20 generating transaction identification data which identifies the received
21 request;

22 including a pattern in the requested signal to form a watermarked signal
23 using a predetermined basis signal, wherein the transaction identification data can
24 be derived from the pattern; further wherein the inclusion of the basis signal in the
25

1 requested signal is designed to introduce no more than a predetermined maximum
2 level of perceptibility to the requested signal.

3
4 Claim 15 (Original): The computer-readable storage medium of Claim 14
5 where including comprises:

6 retrieving the basis signal; and

7 including the basis signal in the requested signal to form the watermarked
8 signal in such a manner that the pattern is embedded in the watermarked signal and
9 can be recognized in the watermarked signal.

10
11 Claim 16 (Previously presented): The computer-readable storage medium
12 of Claim 15 wherein including the basis signal comprises:

13 logically dividing the basis signal into segments; and

14 for each segment of the basis signal,

15 adding the segment of the basis signal to a corresponding segment of
16 the requested signal upon a condition in which a corresponding portion of
17 the pattern has a first logical value; and

18 subtracting the segment of the basis signal from the corresponding
19 segment of the requested signal upon a condition in which the
20 corresponding portion of the pattern has a second logical value.

21
22 Claim 17 (Original): The computer-readable storage medium of Claim 14
23 wherein the computer code, when executed by the computer, further causes the
24 computer to enable tracking a requested signal by:

1 sending the watermarked signal in response to the request for the requested
2 signal.

3
4 Claim 18 (Original): The computer-readable storage medium of Claim 14
5 wherein including comprises:

6 selecting watermarked signal fragments representing a first logical value for
7 corresponding portions of the pattern which have the first logical value;

8 selecting watermarked signal fragments representing a second logical value
9 for corresponding portions of the pattern which have the second logical value; and

10 combining the watermarked signal fragments representing the first and
11 second logical values to form the watermarked signal.

12
13 Claim 19 (Original): The computer-readable storage medium of Claim 18
14 wherein the watermarked signal fragments are compressed such that combining the
15 watermarked signals fragments forms the watermarked signal in a compressed
16 form.

17
18 Claim 20 (Previously presented): A computer-readable storage medium on
19 which is stored computer code which, when executed by a server-side computer,
20 causes the computer to enable embedding of transaction-specific identification
21 data into a requested signal by:

22 logically dividing the requested signal into segments;

23 for each segment,

24 embedding a first logical value in the segment to form a first
25 embedded segment;

1 embedding a second logical value in the segment to form a second
2 embedded segment; and

3 including both the first and second embedded segments in a
4 composite signal.

5
6 Claim 21 (Original): The computer-readable storage medium of Claim 20
7 wherein the computer code, when executed by the computer, further causes the
8 computer to enable embedding of transaction-specific identification data into a
9 requested signal by:

10 for each of the segments of the requested signal:

11 selecting from first and second embedded segments of the composite
12 signal according to a corresponding bit of the transaction-specific
13 identification data.

14
15 Claim 22 (Original): The computer-readable storage medium of Claim 21
16 wherein the computer code, when executed by the computer, further causes the
17 computer to enable embedding of transaction-specific identification data into a
18 requested signal by:

19 combining the selected embedded segments of the composite signal to form
20 a watermarked signal which includes the transaction-specific identification data
21 embedded therein.

22
23 Claim 23 (Original): The computer-readable storage medium of Claim 20
24 wherein including both the first and second embedded segments in a composite
25 signal comprises:

1 including the first embedded segment in a first frame;
2 compressing the first frame to form a first compressed frame;
3 including the second embedded segment in a second frame;
4 compressing the second frame to form a second compressed frame; and
5 including both the first and second compressed frames in the composite
6 signal.

7
8 Claim 24 (Original): The computer-readable storage medium of Claim 23
9 wherein including both the first and second embedded segments in a composite
10 signal further comprises:

11 determining that the first and second compressed frames are equivalent; and
12 including a single compressed frame in the composite signal to represent
13 both the first and second compressed frames.

14
15 Claim 25 (Previously presented): A computer-readable storage medium on
16 which is stored computer code which, when executed by a server-side computer,
17 causes the computer to enable embedding transaction-specific identification data
18 into a requested signal by:

19 retrieving a composite signal which includes, for each of one or more
20 corresponding portions of the requested signal, a first marked segment which
21 represents a first logical value embedded in the corresponding portion of the
22 requested signal and a second marked segment which represents a second logical
23 value embedded in the corresponding portion of the requested signal;

1 for each of the corresponding portions of the requested signal, selecting
2 segments of the composite signal according to logical values of corresponding bits
3 of the transaction-specific identification data; and

4 combining the selected segments to form a watermarked signal which
5 includes the transaction-specific identification data embedded therein.
6

7 Claim 26 (Original): The computer-readable storage medium of Claim 25
8 wherein the first and second marked segments are compressed such that
9 watermarked signal formed by combining the selected segments is compressed.
10

11 Claim 27 (Currently amended): A server computer system comprising:
12 a processor;
13 a memory coupled to the processor; and
14 a watermarker which executes in the processor from the memory and which,
15 when executed, enables tracking of a requested signal by:

16 receiving a request for the requested signal;
17 generating transaction identification data which identifies the
18 received request; and

19 including a pattern in the requested signal to form a watermarked
20 signal using a predetermined basis signal, wherein the transaction
21 identification data can be derived from the pattern; further wherein the
22 inclusion of the basis signal in the requested signal is designed to introduce
23 no more than a predetermined maximum level of perceptibility to the
24 requested signal.
25

1 Claim 28 (Original): The computer system of Claim 27 where including
2 comprises:

3 retrieving the basis signal; and

4 including the basis signal in the requested signal to form the watermarked
5 signal in such a manner that the pattern is embedded in the watermarked signal and
6 can be recognized in the watermarked signal.

7
8 Claim 29 (Previously presented): The computer system of Claim 28
9 wherein including the basis signal comprises:

10 logically dividing the basis signal into segments; and

11 for each segment of the basis signal,

12 adding the segment of the basis signal to a corresponding segment of
13 the requested signal upon a condition in which a corresponding portion of
14 the pattern has a first logical value; and

15 subtracting the segment of the basis signal from the corresponding
16 segment of the requested signal upon a condition in which the
17 corresponding portion of the pattern has a second logical value.

18
19 Claim 30 (Original): The computer system of Claim 27 wherein the
20 watermark, when executed, enables tracking of a requested signal by also:

21 sending the watermarked signal in response to the request for the requested
22 signal.

23
24 Claim 31 (Original): The computer system of Claim 27 wherein including
25 comprises:

1 selecting watermarked signal fragments representing a first logical value for
2 corresponding portions of the pattern which have the first logical value;
3 selecting watermarked signal fragments representing a second logical value
4 for corresponding portions of the pattern which have the second logical value; and
5 combining the watermarked signal fragments representing the first and
6 second logical values to form the watermarked signal.

7
8 Claim 32 (Original): The computer system of Claim 31 wherein the
9 watermarked signal fragments are compressed such that combining the
10 watermarked signals fragments forms the watermarked signal in a compressed
11 form.

12
13 Claim 33 (Currently amended): A server computer ~~system~~ comprising:
14 a processor;
15 a memory coupled to the processor; and
16 a blank watermarker which executes in the processor from the memory and
17 which, when executed, enables embedding of transaction-specific identification
18 data into a requested signal by:

19 logically dividing the requested signal into segments;
20 for each segment,
21 embedding a first logical value in the segment to form a first
22 embedded segment;
23 embedding a second logical value in the segment to form a
24 second embedded segment; and
25

1 including both the first and second embedded segments in a
2 composite signal.

3
4 Claim 34 (Original): The computer system of Claim 33 further comprising:
5 for each of the segments of the requested signal:

6 selecting from first and second embedded segments of the
7 composite signal according to a corresponding bit of the transaction-
8 specific identification data.

9
10 Claim 35 (Original): The computer system of Claim 34 wherein the blank
11 watermark, when executed, enables embedding of transaction-specific
12 identification data into a requested signal by also:

13 combining the selected embedded segments of the composite signal to form
14 a watermarked signal which includes the transaction-specific identification data
15 embedded therein.

16
17 Claim 36 (Original): The computer system of Claim 33 wherein including
18 both the first and second embedded segments in a composite signal comprises:

19 including the first embedded segment in a first frame;
20 compressing the first frame to form a first compressed frame;
21 including the second embedded segment in a second frame;
22 compressing the second frame to form a second compressed frame; and
23 including both the first and second compressed frames in the composite
24 signal.

1 Claim 37 (Original): The computer system of Claim 36 wherein including
2 both the first and second embedded segments in a composite signal further
3 comprises:

4 determining that the first and second compressed frames are equivalent; and
5 including a single compressed frame in the composite signal to represent
6 both the first and second compressed frames.

7
8 Claim 38 (Currently amended): A server computer ~~system~~ comprising:
9 a processor;
10 a memory coupled to the processor; and
11 a watermark which executes in the processor from the memory and which,
12 when executed, embeds transaction-specific identification data into a requested
13 signal by:

14 retrieving a composite signal which includes, for each of one or more
15 corresponding portions of the requested signal, a first marked segment
16 which represents a first logical value embedded in the corresponding
17 portion of the requested signal and a second marked segment which
18 represents a second logical value embedded in the corresponding portion of
19 the requested signal;

20 for each of the corresponding portions of the requested signal,

21 selecting segments of the composite signal according to
22 logical values of corresponding bits of the transaction-specific
23 identification data; and
24
25

1 combining the selected segments to form a watermarked
2 signal which includes the transaction-specific identification data
3 embedded therein.
4

5 Claim 39 (Original): The computer system of Claim 38 wherein the first
6 and second marked segments are compressed such that watermarked signal formed
7 by combining the selected segments is compressed.
8

9 Claim 40 (Previously presented): A computer-readable storage medium
10 executable on a server computer on which is stored a signal which comprises:

11 one or more segments of a subject signal;

12 for each of the segments,

13 a first segment instance representing a first logical value of portion
14 of a pattern which is embedded in the segment; and

15 a second segment instance representing a second logical value of the
16 portion embedded in the segment.
17

18 Claim 41 (Original): The computer-readable storage medium of Claim 40
19 wherein two or more segments of the subject signal are represented in a composite
20 frame; and

21 further wherein the composite frame includes the following frame
22 instances:

23 (i) the first segment instance of a first of the two or more segments of the
24 composite frame and the first segment instance of a second of the two or more
25 segment of the composite frame;

1 (ii) the first segment instance of the first segment of the composite frame
2 and the second segment instance of the second segment of the composite frame;

3 (iii) the second segment instance of the first segment of the composite
4 frame and the first segment instance of the second segment of the composite
5 frame; and

6 (iv) the second segment instance of the first segment of the composite frame
7 and the second segment instance of the second segment of the composite frame.

8
9 Claim 42 (Original): The computer-readable storage medium of Claim 41
10 wherein the frame instances (i) through (iv) are compressed.

11
12 Claim 43 (Original): The computer-readable storage medium of Claim 40
13 wherein the first and second segment instances or each of the segments are
14 compressed.

15
16 Claim 44 (Previously presented): A transaction-specific watermark
17 embedded in requested digital content, wherein the digital content is received at a
18 server-side computer.

19
20 Claim 45 (Previously presented): The watermark of claim 44, wherein the
21 watermark is embedded in a carrier wave transporting the requested digital content
22 via a network to a party who requested the digital content.

1 Claim 46 (Previously presented): The watermark of claim 44, wherein two
2 or more segments of a signal representing the requested digital content are
3 included in a composite frame; and further wherein the composite frame includes:

4 (i) a first segment instance of a first of the two or more segments of the
5 composite frame and a first segment instance of a second of the two or more
6 segment of the composite frame;

7 (ii) the first segment instance of the first segment of the composite frame
8 and a second segment instance of the second segment of the composite frame;

9 (iii) a second segment instance of the first segment of the composite frame
10 and the first segment instance of the second segment of the composite frame; and

11 (iv) the second segment instance of the first segment of the composite frame
12 and the second segment instance of the second segment of the composite frame.
13

14 Claim 47 (Previously presented): A transaction-specific watermark
15 embedded in requested digital content, the watermark being generated by one or
16 more processors of a server computer configured to perform acts of:

17 generating transaction identification data identifying a received request;

18 including a pattern in the requested digital content to form a watermarked
19 signal using a predetermined basis signal, wherein the transaction identification
20 data can be derived from the pattern, wherein including is designed to introduce no
21 more than a predetermined maximum level of perceptibility to the requested digital
22 content.
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1 Claim 48 (Previously presented): The watermark of claim 47, wherein the
2 watermark is embedded in a carrier wave transporting the requested digital content
3 via a network to a party who requested the requested digital content.
4

5 Claim 49 (Previously presented): The watermark of claim 47, wherein two
6 or more segments of a signal representing the requested digital content are
7 included in a composite frame; and further wherein the composite frame includes:

8 (i) a first segment instance of a first of the two or more segments of the
9 composite frame and a first segment instance of a second of the two or more
10 segment of the composite frame;

11 (ii) the first segment instance of the first segment of the composite frame
12 and a second segment instance of the second segment of the composite frame;

13 (iii) a second segment instance of the first segment of the composite frame
14 and the first segment instance of the second segment of the composite frame; and

15 (iv) the second segment instance of the first segment of the composite frame
16 and the second segment instance of the second segment of the composite frame.
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